

ABSTRACT

The invention relates to a spreader system without electric cables for lifting goods containers. The spreader system comprises a spreader and two pulley sets. Each pulley of the pulley sets is fitted with a geared ring, and gears are fixed on the headblock of the spreader. An FALK-flexible coupling is fixed on a gear shaft and is connected to planetary speeder, which is, in turn, connected to a bi-directional plunger pump. Through a hydraulic circuit, the bi-directional plunger pump is connected to a hydraulic accumulating power station which comprises a hydraulic accumulator, a nitrogen bottle connected to the hydraulic accumulator through a pipeline, an oil tank, an electric generator, a battery, and an oil motor connected to the electric generator and controlled by a magnetic valve. On the spreader, there is a remote control transmitter in order to transmit signals to the remote control receiver in the cab of a container crane. While the crane hoists the spreader, due to friction, the wire rope will rotate the pulley sets, which will finally drive the bi-directional plunger pump and an accumulative power source will form. Thereby, cables for the spreader can be omitted.